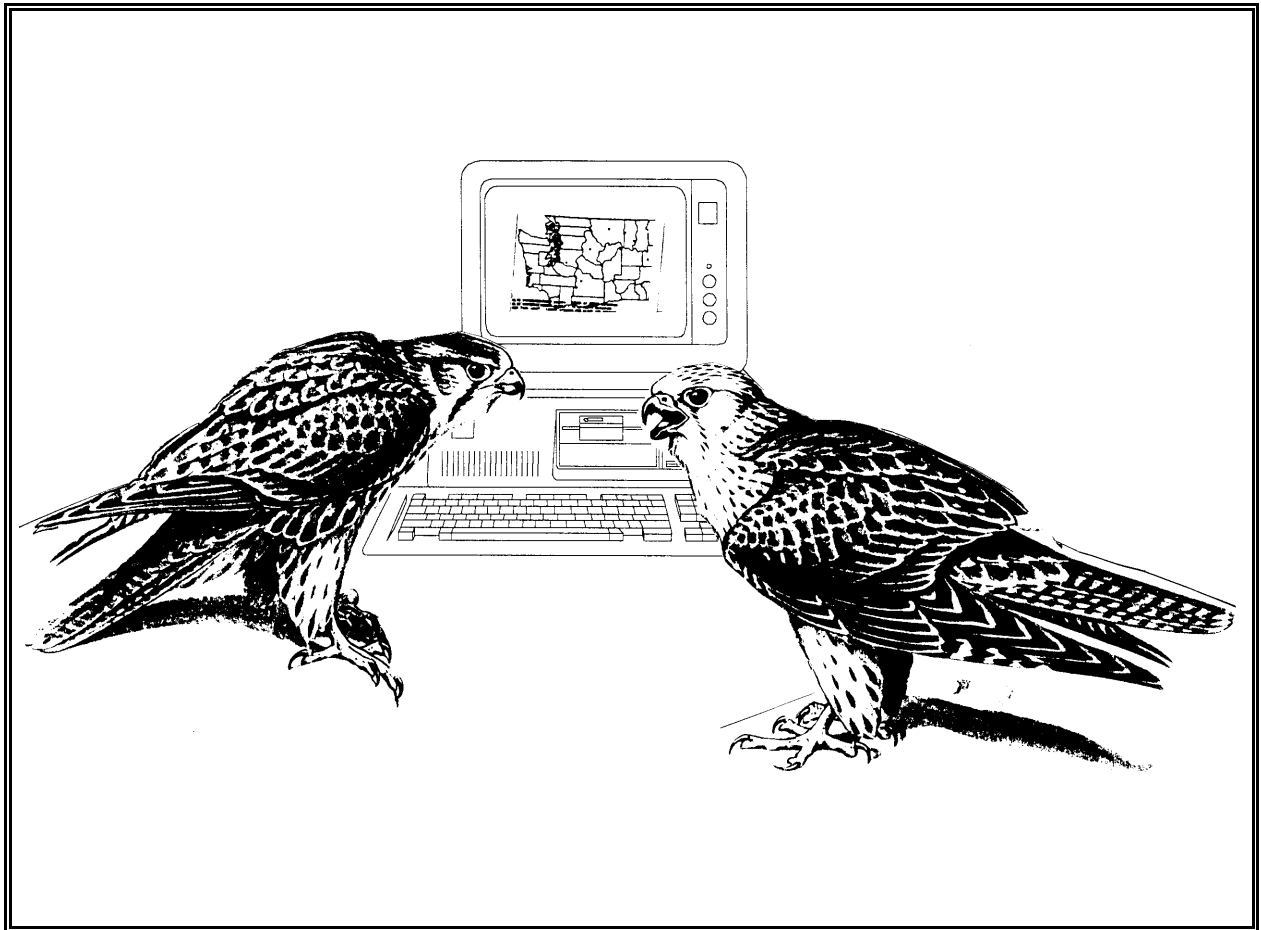


600 Capitol Way North, Olympia Washington 98501-1091

W Washington

DEPARTMENT OF FISH AND WILDLIFE

March 2005



FISH AND WILDLIFE STANDARD MAPS AND DIGITAL DATA PRODUCT DESCRIPTIONS

Visit Our Web Site At: wdfw.wa.gov

**WASHINGTON DEPARTMENT OF
FISH AND WILDLIFE**

**DESCRIPTIONS OF STANDARD MAPS AND
DIGITAL DATA PRODUCTS**

MARCH 2005

TABLE OF CONTENTS

INTRODUCTION	1
SUMMARY OF INFORMATION AVAILABLE	2
REQUEST PROCEDURES	3
COSTS	5
PRIORITY HABITATS AND SPECIES DATABASE	6
General Description.....	6
Resolution and Limitations	6
Standard Products.....	7
WILDLIFE HERITAGE DATABASE	8
General Description.....	8
Resolution and Limitations	8
Standard Products.....	9
SPOTTED OWL DATABASE.....	10
General Description.....	10
Resolution and Limitations	10
Standard Products.....	11
MARBLED MURRELET DATABASE	12
General Description.....	12
Resolution and Limitations	12
Standard Products.....	12
WASHINGTON LAKES AND RIVERS INFORMATION SYSTEM DATABASE	14
General Description.....	14
Resolution and Limitations	14
Standard Products.....	15

MARINE RESOURCES DATABASE	16
General Description.....	16
Resolutions and Limitations	16
Standard Products.....	17
SEABIRD COLONY DATABASE	18
General Description.....	18
Resolution and Limitations	18
Standard Products.....	18
SEAL AND SEA LION HAULOUT DATABASE.....	19
General Descriptions.....	19
Resolution and Limitations	19
Standard Products.....	19
OLD GROWTH DATABASE	21
General Description.....	21
Resolution and Limitations	21
Standard Products.....	21
NATIONAL WETLANDS INVENTORY DATABASE	22
General Description.....	22
Resolution and Limitations	22
Standard Products.....	22
APPENDIX	
Appendix A. WDFW Regional Contacts	23

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

DESCRIPTION OF STANDARD MAPS AND DIGITAL DATA PRODUCTS

INTRODUCTION

This document describes the locations of important fish, wildlife and habitat information available from the Washington Department of Fish and Wildlife (WDFW). It describes databases managed with geographic information system (GIS) software, and procedures for obtaining standard maps or digital information. This document is not an exhaustive description of all GIS databases managed by WDFW. The databases described here contain information on locations of important, fish, habitats and wildlife species that should be considered in land use decisions.

WDFW has invested substantial effort and resources toward the development and distribution of important baseline information on fish and wildlife resources. The demand for this information is often greater than resources available to provide it. For that reason, we have developed a request process and standard products in an attempt to streamline requests for information. The standard products are designed to meet the most common needs.

The time it takes to fill information requests varies between one and eight weeks. Planning ahead will ensure that fish and wildlife information will be incorporated into your project. Potential requesters should closely examine their information needs and limit requests to products they are reasonably certain they can use. This will help WDFW to meet the numerous requests in a timely fashion.

By receiving fish and wildlife information from WDFW, you incur an obligation to use it in a way that does not cause undue harm to our public fish and wildlife resources. All fish and wildlife species are vulnerable to harm from human activities. Harm can occur directly (e.g., an animal is harassed or injured) or indirectly (e.g., a nest tree is felled or a wetland is drained). Harm can occur unintentionally, even by those who value the fish and wildlife resources (e.g., repeated visits to a heron rookery which flushes birds from the nest and exposes eggs to cold weather and predators). The most serious threats to fish and wildlife, rather than being direct and malicious acts, are indirect actions where harm to fish and wildlife was unintentional.

The Washington State constitution confers fish and wildlife ownership to all citizens of the state. WDFW is mandated to safeguard this ownership by preserving, protecting and perpetuating fish and wildlife resources. The public has a crucial role in fulfilling this mandate, for two reasons. First, the statewide distribution of fish and wildlife species and habitats are beyond the monitoring capability of any single agency. Second, the state's constitution gives to the people ownership of fish and wildlife but not of the habitat on which fish and wildlife's survival ultimately depends. Property owners are also habitat owners and their collective actions have a profound effect on the state's fish and wildlife.

WDFW provides information on the location of many of Washington's most sensitive and vulnerable fish and wildlife resources. Use of this information must be commensurate with the vulnerability of fish and wildlife resources and with the conditions outlined in WDFW Releasing Sensitive Fish and Wildlife Information Policy - 5210.

Fish and wildlife species are protected through specific legislation. Regulations most applicable to users of WDFW information include RCW 77.16.120 (taking of protected fish and wildlife), WAC 232-12-292 (Bald Eagle protection rules), WAC 232-12-064 (live fish and wildlife) and RCW 42.17.310 (exempting of sensitive fish and wildlife information from public inspection and copying).

Information on specific locations of some fish and wildlife species is considered sensitive, and access to that information is restricted by WDFW policy. Special precautions should be taken when using and distributing sensitive information. Upon making a request, you will be informed as to the sensitivity of the information you receive and will be given information on the precautions that should be taken.

WDFW wishes to encourage use of this information so costs to requesters for information will be kept to a minimum. Charges for standard map and digital data products are not an attempt to recover data development costs but to cover cost of materials, shipping and handling, and staff time.

SUMMARY OF INFORMATION AVAILABLE

Databases covered in this document contain Washington Department of Fish and Wildlife's (WDFW) knowledge of fish and wildlife resources and occurrences based on research and field surveys conducted over the past 30 + years. It is important to note, however, that habitats and species may occur on the ground in areas not currently known to WDFW biologists or in areas from which comprehensive surveys have not been conducted. Site-specific surveys are frequently necessary to rule out the presence of priority species or habitat types. Information from all these databases are explained in greater detail later in this document. These databases are:

Priority Habitats and Species Database - An inventory of priority species use areas and habitats based on WDFW biologist knowledge.

Wildlife Heritage Database – Contains significant species site observations from field surveys to reports from reputable sources.

Spotted Owl Database - Locations of spotted owl sites.

Marbled Murrelet Database - Locations of marbled murrelet detection sites.

Washington Lakes and Rivers Information System Database – An inventory of priority anadromous/resident fish distribution, facilities, and lakes/reservoirs.

Marine Resources Database – A collection of marine and shellfish resources.

Seabird Colony Database – Contains locations surveyed for breeding seabirds.

Seal and Sea Lion Haulout Database – Seal and sea lion haulout sites.

Old Growth Database – Contains information about 1988 late successional forest stands.

National Wetlands Inventory Database – An inventory identifying wetland and deep water habitats based on data derived from high altitude color infrared aerial photographs.

Additionally information on kelp beds, oak stands, eelgrass, turf algae and township/section data are displayed on WDFW maps. These data are managed by the Washington Department of Natural Resources and are used with their permission. For information on these data in a digital format visit their web site at: dnr.wa.gov/dataandmaps.

Information is available as standard maps or in digital ESRI® geographic information system (GIS) export or shape file formats. The maps are suitable for environmental review and planning for site-specific projects, as well as many other applications.

Map and digital data products are supported by documents titled *Management Recommendations for Priority Habitats and Species*. These management recommendations are developed with a thorough review of the best scientific literature available. They provide important background information on each species or habitat type and recommendations for conducting land uses that consider the needs of fish and wildlife. When a priority habitat or species occurs in or near a project site, these management recommendations should be consulted to determine how to modify the project in consideration of fish and wildlife needs.

REQUEST PROCEDURES

Fish and wildlife information described in this document are typically available in standard formats that are explained in the sections on each database. Because of the volume of requests Washington Department of Fish and Wildlife (WDFW) receives, and staff limitations, custom requests are discouraged; however, if the standard offerings are not workable for your needs, contact us so we can explore other options.

These databases do not represent exhaustive inventories. They are compilations of existing knowledge from field biologists that are updated as knowledge improves. Because these fish and wildlife data are not exhaustive and subject to change, project review for fish and wildlife should not rest solely on mapped or digital priority habitats and species data. Instead, they should also consider new information gathered from field investigations.

Please note maps or digital data may contain some species and habitats that are not considered priority by the agency. Also, because the databases are subject to change, information should not be used if over six months old; please request updated maps and/or digital data rather than use old information.

Information on specific locations of some fish and wildlife is considered sensitive by the Director of WDFW and will be released in a standard format only. This format may be either tabular, digital, and/or displayed on a 1:24,000 scale map. WDFW standard map format consists of fish, wildlife, and habitat information displayed for an individual section with a one square mile buffer (nine square miles total). WDFW will release sensitive fish

and wildlife information under its Releasing Sensitive Fish and Wildlife Information Policy - 5210 to the following parties in conjunction with the signing of a Release Agreement.

- A. Government agencies;
- B. Tribes;
- C. Researchers affiliated with an accredited college or university;
- D. Private landowners (for their lands), or other parties with permission from the landowner; or
- E. Agents of the above parties (e.g., consultants, realtors, etc.).

Sensitive fish and wildlife information for less than thirty-six square miles (one Township) may be provided to these parties along with a request for a signed Sensitive Fish and Wildlife Information Release Agreement. WDFW will grant subsequent sensitive information only to those parties whom the signed agreement has been obtained.

The Release Agreement indicates that the signatory (person or organization) recognizes the appropriate guidelines for disseminating Sensitive Fish and Wildlife Information and has agreed to the provisions of the policy. For additional information or questions contact WDFW at (360) 902-2543.

For more information on WDFW you may visit our web site at wdfw.wa.gov or visit the Priority Habitats and Species site at wdfw.wa.gov/hab/phspage.htm.

For information on the state's endangered, threatened, and sensitive plants as well as high quality wetland and terrestrial ecosystems, please contact the Washington Department of Natural Resources, Natural Heritage Program at PO Box 47016, Olympia Washington 98504-7016, by phone (360) 902-1667 or visit their web site at dnr.wa.gov/nhp.

The following steps should be followed to order information.

Step 1. Send a completed *Fish and Wildlife Order Form* and/or a detailed letter requesting information to:

Washington Department of Fish and Wildlife
Priority Habitats and Species
600 Capitol Way North
Olympia, Washington 98501-1091

or fax to : (360) 902-2946

The letter, if sent without a order form, should contain the following information:

- ⇒ Name, address and phone number;
- ⇒ Project name/number;
- ⇒ Brief description of project and parties involved;
- ⇒ Project location of request by township, range, and section;
- ⇒ Project vicinity map; and
- ⇒ Standard map or digital data product requested.

Step 2. Upon receiving your request, WDFW staff will review for further clarification and determine if a Sensitive Fish and Wildlife Information Release Agreement is required to communicate to you WDFW's concerns about sensitive information. If needed the necessary documents will be sent to you for signature(s). A completed Release Agreement will be returned to you for your files upon our signature. When the Release Agreement is completed, we will fill your request as soon as possible. If no Release Agreement is required, the request is logged and channeled to staff, to fill the request. A phone call to WDFW at (360) 902-2543 would determine if your request requires a Release Agreement.

Step 3. WDFW staff will ship you the requested maps and/or digital data products and documents explaining the information, pre-payment is not required. You will receive an invoice itemizing the costs for your request and instructions for submitting payment. *Sorry, we do not accept payments by credit card.*

Step 4. Requesters needing assistance with biological interpretation of information can obtain it by contacting the WDFW Habitat Program Manager (see Appendix A) to ask for the area habitat biologist for your project area. General questions about the standard products should be directed to WDFW staff at (360) 902-2543. Specific questions for use of the digital data should be directed to the database manager responsible for the particular database in question (see individual database descriptions).

Step 5. For clarification of the available information or request procedures, contact WDFW at (360) 902-2543.

COSTS

Because of the high volume of requests for information received by Washington Department of Fish and Wildlife, we need to charge for these products to recover some of our costs. We are not attempting to recover data development costs but do find it necessary to charge for materials, labor, and shipping and handling for information requests. The cost schedule is available upon request or from our web site at wdfw.wa.gov/hab/release.htm and clicking on *Order Form and Ordering Information*.

PRIORITY HABITATS AND SPECIES DATABASE

Database Manager: Terry Johnson
(360) 902-2494

General Description

The Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) Database consists of polygons or points that describe occurrences of priority habitats and species. Priority species are those fish and wildlife species requiring special efforts to ensure their perpetuation because of their low numbers, sensitivity to habitat alteration, tendency to form vulnerable aggregations, or because they are of commercial, recreational, or tribal importance. All priority species mapped areas represent known use areas; they are not potential habitats. Priority habitats are areas that support diverse, unique, and/or abundant communities of fish and wildlife. Mapped data are accompanied with reports detailing each priority habitat and species.

PHS polygon or point information is collected by WDFW biologists using the best information available from research efforts, surveys, or field observations. The exact source of each delineated feature is described in the accompanying report. These data represent known occurrences of priority habitats and species, not potential or theoretical.

Resolution and Limitations

PHS polygon and point data are compiled on 1:24,000 scale US Geological Survey 7.5-minute topographic maps. A code is used on supporting data forms, that contain information about the location and indicates the accuracy of the feature as determined by the field biologist doing the mapping. Accuracy ranges from within one-quarter mile to a general area.

WDFW updates this information as additional data become available. Because fish and wildlife species are mobile and because priority habitats and species information changes, project reviews for fish and wildlife should not rest solely on mapped information. Instead, they should also consider new information gathered from current field investigations. Remember, priority habitats and species information can only show that a species or habitat type is present, they cannot show that a species or habitat type is not present. These products should not be used for future projects. Please obtain updates rather than use outdated information.

This database contains species and/or habitat locations that are deemed sensitive by WDFW under its Releasing Sensitive Fish and Wildlife Policy – 5210. Please refer to this policy for conditions regarding the use of this information. This policy is available by contacting the Priority Habitats and Species Section at (360) 902-2543.

Standard Map Products

Detailed 1:24,000 Scale Habitats and Species Map

The PHS Database and recent (observations since 1978) information from the Wildlife Heritage Database are shown on the 1:24,000 scale maps. Also shown are spotted owl management circles, marbled murrelet detections, seabird colonies, seal and sea lion haulout sites, presence of fish species, priority species and habitats including National Wetlands Inventory areas. A report is provided to further describe each PHS polygon displayed on the map.

A document, *Fish and Wildlife Map Products*, may be provided with the maps with a complete description of the codes used on the map and in the reports or it may be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

Single Species or Habitat Distribution Map

Contains information for a single species or habitat type. Maps include a specified single species or a single habitat type; transportation and utilities; and major public lands. This format is used when information about a specific species or habitat type is required. A report that describes fish and wildlife resources is not available with the single species or habitat maps. If more detailed information is needed please request either digital data or the 1:24,000 scale habitats and species maps.

Habitats and Species Summary Map by County

Contains summary information by county. Map includes a summary of priority habitat and species sites and areas (species and habitat sites are not specifically identified); utilities and transportation; and National Wetlands Inventory areas. This format is used when highly accurate locations of species and habitats are not required or data for a large area are requested. A report that describes fish and wildlife resources is not available with the county maps. If more detailed information is needed please request either digital data or the 1:24,000 scale habitats and species maps.

Standard Digital Products

Digital data are available as ESRI® export or shape file format, in State Plane South coordinates (Zone 5626), North American Datum of 1927 or North American Datum of 1983 (1991 adjustment). The data will be provided as a single species and habitat polygon layer and there may also be a point layer containing habitat sites as well. With the export files there will be a series of attribute INFO (tabular) tables related to the coverages to describe its features. In addition, a region feature class structure has been included with the polygonal data that simplifies the cumbersome use of the attribute table system.

A detailed document, *Fish and Wildlife Digital Data Documentation*, may be provided with the digital data or it can be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

WILDLIFE HERITAGE DATABASE

Database Manager: Gretchen Blatz
(360) 902 2484

General Description

The Washington Department of Fish and Wildlife (WDFW) Heritage Database contains information on documented point occurrences of non-game species of concern, state and federal species including those designated as endangered, threatened, sensitive, candidate, and monitor. This database was developed in the early 1980s and formed the beginning of the Priority Habitats and Species (PHS) Program.

Wildlife heritage data are collected by a variety of means from field surveys to reports from reputable sources. Scope of the database is statewide and encompasses over 230 species. The database is continually being updated. High priority species are surveyed either every year or every five years. Lower priority species are surveyed as field logistics allow or on a less rigorous schedule.

Spotted owl and marbled murrelet detection sites are not included in the Wildlife Heritage Database. If there are spotted owls or murrelets within your project area they will be included as part of the standard request process but in separate databases. Please see the Spotted Owl and Marbled Murrelet Database sections of this document for more information.

Resolution and Limitations

Positional accurate data for current site observations are represented as point locations. These data are at least accurate to within a quarter section of the Public Land Survey older and less accurate data are reported by the section only.

Only the most current (1978 and later) and accurately known data will be supplied as points with standard products. All other information will only be provided in response to special requests. Using the older information requires consultation with WDFW biologists. See Appendix A, at the end of this document, for those contacts.

Please note maps or digital data may contain some species and habitats that are not considered priority by the agency. Also, this database contains information on species locations with direct regulatory implications. Wildlife heritage data is updated constantly, therefore, information should not be used for future projects. Please obtain updated maps and/or digital data rather than use outdated information.

This database contains species locations that are deemed sensitive by WDFW under its Releasing Sensitive Fish and Wildlife Policy – 5210. Please refer to this policy for conditions regarding the use of this information. This policy is available by contacting the Priority Habitats and Species Section at (360) 902-2543.

Standard Map Products

Wildlife heritage data are available as maps at various scales. They are combined on maps with information from the Priority Habitats and Species polygon/point database and other databases with priority information. See map descriptions under the Priority Habitats and Species Database section, of this document, for further details. A report that describes each species points on the 1:24,000 scale map is included. This report is different than that produced for the other priority databases because the descriptive items are not the same.

A document, *Fish and Wildlife Map Products*, may be provided with the maps with a complete description of the codes used on the map and in the reports or it may be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

Standard Digital Products

Digital data are available as ESRI® export or shape file format, in State Plane South coordinates (Zone 5626), North American Datum of 1927 or North American Datum of 1983 (1991 adjustment). The data will be provided as a single species point layer.

A detailed document, *Fish and Wildlife Digital Data Documentation*, may be provided with the digital data or it can be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

SPOTTED OWL DATABASE

Database Manager: Lori Salzer
(360) 902-2482

General Description

The US Fish and Wildlife Service and Washington Department of Natural Resources (DNR) are the primary regulatory agencies managing impacts to spotted owls. These agencies have adopted a management circle approach for assessing the remaining suitable habitat surrounding documented spotted owls. Spotted owl observations are evaluated by Washington Department of Fish and Wildlife (WDFW) biologists and organized to comprise the most accurate representation of owl territories based on type of observation, dispersal distances, habitat characteristics, and topography. The most recent related observation is designated the spotted owl site center. From this site center location a radius of 9,504 feet (1.8 miles) is used for owl sites east of the I-5 corridor or 14,256 feet (2.7 miles) is used west of I-5 to evaluate the amount of remaining habitat. The different radii reflect differences in home range sizes used by owls as determined by radio-telemetry studies.

Spotted owl survey results are sent in to WDFW where owl locations are compared to existing spotted owl site centers. If the new locations are sufficiently distant from established site centers, a new site is established. If the new observation is geographically related to a existing site center, has equivalent or greater biological significance, and is more current than the observation used to establish the existing site center, the site center is moved to the location of the new observation and the site center datum is encoded with the new biological status and observation date. If the new observation is geographically related to an existing site center, but does not have equivalent or greater biological significance relative to the observation used to establish and existing site center, the site center remains unchanged.

Resolution and Limitations

Spotted owl survey data are digitized from 1:24,000 scale US Geological Survey 7.5-minute topographic maps. The Spotted Owl Database site centers and its associated files are continually being updated from data received from WDFW, DNR, and timber industry survey efforts. Data from previously un-surveyed areas or of higher biological status receive data processing priority over geographically or biologically redundant data.

This database contains information on species locations with direct regulatory implications. Spotted owl data is updated constantly, therefore, it is essential that users obtain updates before using maps and/or digital data for future projects.

Spotted owl locations are deemed sensitive by WDFW under its Releasing Sensitive Fish and Wildlife Policy – 5210. Please refer to this policy for conditions regarding the use of this information. This policy is available by contacting the Priority Habitats and Species Section at (360) 902-2543.

Standard Map Products

Spotted owl site centers and areas potentially impacted by spotted owl management concerns are combined on maps with information from the Priority Habitats and Species polygon/point database and other databases with priority information. See map descriptions under the Priority Habitats and Species Database section, of this document, for further details. A report detailing information on spotted owls is not included with the standard products. If specific details on spotted owls site centers are required they must be requested from the database manager.

A document, *Fish and Wildlife Map Products*, may be provided with the maps with a complete description of the codes used on the map and in the reports or it may be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

Standard Digital Products

Digital data are available as ESRI® export or shape file format, in State Plane South coordinates (Zone 5626), North American Datum of 1927 or North American Datum of 1983 (1991 adjustment). The spotted owls site center data will be provided as a single species point layer. Owl management polygon layers, consisting of buffers of site centers, are not routinely provided as part of the standard request process. If you require these layers a special request for them must be made at the time you place your order.

A detailed document, *Fish and Wildlife Digital Data Documentation*, may be provided with the digital data or it can be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

MARBLED MURRELET DATABASE

Database Manager: Jane Jenkerson
(360) 902-2497

General Description

The Washington Department of Fish and Wildlife (WDFW) maintains information on marbled murrelet occupancy detection locations, detection areas and detection sections. Data are collected by a variety of means from field surveys to reports from reputable sources.

Resolution and Limitations

Positional accurate data for observations are represented as point locations. These data are at least accurate to within 1/16 section of the Public Land Survey.

Of 19,000 marbled murrelet detections 17,000 locations were digitized from 1:12,000 scale aerial photography. Only the detections indicative of stand occupancy will be provided as part of the standard request process. All other data will only be provided as a special request made at the time you place your order.

This database contains information on species locations with direct regulatory implications. Marbled murrelet data is updated constantly, therefore, it is essential that users obtain updates before using maps and/or digital data for future projects.

All fish and wildlife species are vulnerable to harm from human activities. By receiving marbled murrelet data from WDFW, you incur an obligation to use it in a way that does not cause undue harm to our public fish and wildlife resources.

Standard Map Products

Map products are designed for users external to the forest practice permit process and as such does not reflect all the information pertinent to forest practice review. The Forest Practice Rules adopted August 22, 1997 by the Forest Practice Board and administered by the Washington Department of Natural Resources require forest practice applications to be screened against marbled murrelet detection areas and detection sections. Marbled murrelet detection locations are included on the standard map products, but the detection areas and detection sections are not. If your project is affected by Forest Practice Regulations, a special request for detection areas and sections must be made at the time you place your order.

Marbled murrelet detection locations are available as maps at various scales. They are combined on maps with information from the Priority Habitats and Species polygon/point database and other databases with priority information. See map descriptions under the

Priority Habitats and Species Database section, of this document, for further details. A report detailing information on marbled murrelets is not included with the standard map products. If specific details on marbled murrelet detection locations are required they must be requested from the database manager.

A document, *Fish and Wildlife Map Products*, may be provided with the maps with a complete description of the codes used on the map and in the reports or it may be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

Standard Digital Products

Digital data are available as ESRI® export or shape file format, in State Plane South coordinates (Zone 5626), North American Datum of 1927 or North American Datum of 1983 (1991 adjustment). The marbled murrelet detection locations will be provided as a single species point layer. Murrelet detection areas and section polygon layers, consisting of buffers and the section of site centers, are not routinely provided as part of the standard request process. If you require these polygon layers a special request for them must be made at the time you place your order.

A detailed document, *Fish and Wildlife Digital Data Documentation*, may be provided with the digital data or it can be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

WASHINGTON LAKES AND RIVERS INFORMATION SYSTEM DATABASE

Database Manager: Martin Hudson
(360) 902-2487

General Description

The Washington Lakes and Rivers Information System (WLRIS) Database contains statewide priority fish distribution, streams/rivers, lakes and reservoirs at a scale of 1:24,000 and a facilities layer at a scale of 1:100,000. Fish distribution information is based on Limiting Factors Analysis (LFA) for defining the documented, presumed and potential presence categories. Known spawning and rearing information is also included where available.

The Washington Department of Fish and Wildlife (WDFW) Fish Programs Science Division directs database project management. Funding sources are WDFW Fish Program and Information Technology Services. Recent statewide updates and reviews of the database by biologists indicate that a significant number of additional 1:24,000 scale streams of documented, presumed and/or potential fish presence, thus, justifying the need for a fish resource Geographic Information System (GIS) database at 1:24,000 scale or greater.

Resolution and Limitations

WDFW has assimilated anadromous salmonid and dolly varden/bull trout distribution and use information compiled from numerous fish mapping initiatives in the state. The priority resident fish information was transferred from the 1:100,000 scale StreamNet Database and linked to the 1:24,000 scale hydrography layer. The goal is to provide a single database for priority fish distribution that is spatially enabled via links to a 1:24,000 scale routed hydrography layer. Mapping review parties were organized across the state to verify the results of the data assimilation work. Updates and corrections to the database were completed after the reviews.

One of the greatest challenges was to settle on a set of fish distribution and use categories and to align the formal definitions so that a common understanding and a standard vocabulary could be developed. Care was taken not to obliterate the original understandings that guided compilation of earlier data from other databases. It was recognized that shades of distinction exist between databases that are important for some species such as bull trout; and a means to provide these distinctions was made without making the broader database cumbersome.

The salmon/steelhead anadromous species and bull trout data are current as of June 2004 and will be updated based on a "need to know" set of criteria driven primarily by WDFW's Salmonid Stock Inventory (SaSI) data. Other factors will include data availability from outside sources that include the Tribal Nations and federal and local agencies. The intent of the database is to provide the most recent data collected under the LFA guidelines. The resident fish information was compiled largely by interviews with WDFW biologists and has not been reviewed since 1989 and, therefore, these data are less comprehensive and are not current.

All fish and wildlife species are vulnerable to harm from human activities. By receiving WLRIS data from WDFW, you incur an obligation to use it in a way that does not cause undue harm to our public fish and wildlife resources.

Standard Map Products

The WLRIS data are available as maps at various scales. Presence of priority fish species are combined on maps with information from the Priority Habitats and Species polygon/point database and other databases with priority information. Streams with priority anadromous and resident fish species from the WLRIS database are highlighted on the various maps available. Due to the complexity of displaying linear features individual species that utilize each river reach are not distinguishable. If more species specific information is needed, users should request individual species maps, digital data, or contact the database manager. A report that describes each highlighted fish reach is included with the standard 1:24,000 scale maps. See map descriptions under the Priority Habitats and Species Database section, of this document, for further details about the type of maps available.

A document, *Fish and Wildlife Map Products*, may be provided with the maps with a complete description of the codes used on the map and in the reports or it may be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

Standard Digital Products

Digital data are available as ESRI® export or shape file format, in State Plane South coordinates (Zone 5626), North American Datum of 1927 or North American Datum of 1983 (1991 adjustment). The 1:24,000 scale priority fish distribution with known spawning and rearing information where available, Salmonid and Stock Inventory (SaSI) presence, streams/rivers, lakes, reservoirs, and a 1:100,000 scale facilities layer will be provided as part of the standard data process.

A detailed document, *Fish and Wildlife Digital Data Documentation*, may be provided with the digital data or it can be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

MARINE RESOURCES DATABASE

Database Manager: Dale Gombert
(425) 379-2317

General Description

The Marine Resources Database is a collection of information concerning marine fish and shellfish resources in the coastal and inland marine waters of Washington. These data were collected by Fish Program, Marine Resources Division, of the Washington Department of Fisheries (now the Washington Department of Fish and Wildlife).

"In 1983, the Washington Department of Fisheries (WDF) summarized available information concerning salmon, marine fish and shellfish resources in Washington's coastal and inland marine waters. This information was intended to be published as WDF *Technical Report No. 79* but for a variety of reasons the project was not completed at that time. This information primarily consisted of maps depicting locations of salmon, baitfish, ground fish, and shellfish resources and associated fisheries in Puget Sound, the Strait of Juan de Fuca, and the outer Washington coast.

In 1988, the US Department of Interior's Minerals Management Service (MMS) entered into a cooperative agreement with the Pacific States Marine Fisheries Commission (PSMFC), liaison for Oregon and Washington fish agencies, to develop fishery resource databases required for a proposed oil and gas leasing program off the coasts of the two states. As part of this contract, WDF developed quantitative and qualitative data reports describing major fisheries resources of Washington potentially affected by offshore mining explorations and/or developments. The qualitative data report included maps depicting locations and timings of major commercial and recreational ocean fisheries, and locations of razor clam beaches and coastal surf smelt spawning beaches (WDF 1992).

In 1991, WDF was requested to provide updated fishery resource information for the *Puget Sound Environmental Atlas*, originally published in February 1987 (Evans-Hamilton, Inc. and D.R. Systems Inc.). Since the information was readily available, it was decided to revise and update the original *Technical Report 79* with the new resource maps produced for the MMS report and the *Puget Sound Atlas*.¹

Resolutions and Limitations

The Marine Resources data, for the most part, have not been updated since the publication of the 1992 *Technical Report No. 79*. The exception to this is the baitfish layers, which consist of herring spawning/holding areas, surf smelt, sand lance and rock sole spawning. They continue to be updated as surveys are conducted.

¹ April 1992, Technical Report No. 79 Revised, WDF

Generally this data is highly variable regarding source some of it is based on field surveys while others are based on “best professional judgment” of the biologist involved. This data has been generalized for the release to the general public. If more specific information is needed users need to contact the biologist directly. See Appendix A, at the end of this document, for those contacts.

Only those species considered priority by the Washington Department of Fish and Wildlife (WDFW) will be provided from the Marine Resource Database. All other information will only be provided in response to special requests.

This database contains species locations that are deemed sensitive by WDFW under its Releasing Sensitive Fish and Wildlife Policy – 5210. Please refer to this policy for conditions regarding the use of this information. This policy is available by contacting the Priority Habitats and Species Section at (360) 902-2543.

Standard Map Products

Marine resources data are available as maps at various scales. If you are requesting the detailed 1:24,000 scale standard habitats and species maps you will automatically receive a set of marine maps. You may receive a set of up to three maps that include the generalized marine fish and shellfish areas. For all other map products the marine resources maps need to be requested separately. See map descriptions under the Priority Habitats Database section, of this document, for further details. A report detailing information on the marine fish and shellfish areas is not included with the standard products. Contact the database manager for any questions you may have regarding this data.

A document, *Fish and Wildlife Map Products*, may be provided with the maps with a complete description of the codes used on the map and in the reports or it may be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

Standard Digital Products

Digital data are available as ESRI® export or shape file format, in State Plane South coordinates (Zone 5626), North American Datum of 1927 or North American Datum of 1983 (1991 adjustment). Priority marine fish and shellfish resources in the coastal and inland marine waters of Washington will be provided as single polygon or line layers per species. If you require other layers, not considered priority by the agency, a special request for them must be made at the time you place your order.

A detailed document, *Fish and Wildlife Digital Data Documentation*, may be provided with the digital data or it can be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

SEABIRD COLONY DATABASE

Database Manager: US National Oceanic Atmospheric Administration

General Description

The Seabird Colony Database contains locations surveyed for breeding seabirds as documented in the *Catalog of Washington Seabird Colonies* by Steven M. Speich, et al, published in 1989 by US National Oceanic Atmospheric Administration.

Resolution and Limitations

The Washington Department of Fish and Wildlife (WDFW) digitized the surveyed breeding locations from the 1989 publication. Population numbers by species reflect counts of breeding individuals based upon the most recent or best estimates as indicated in the publication. If no observations were classed as “most recent or best” populations numbers were not provided. Please note that this database is static and the information is dated, currently there are no plans to update the data. For more recent information, contact the WDFW biologist for your project area. See Appendix A, at the end of this document, for those contacts.

Please note maps or digital data may contain some species and habitats that are not considered priority by the agency.

All fish and wildlife species are vulnerable to harm from human activities. By receiving seabird colony data from WDFW, you incur an obligation to use it in a way that does not cause undue harm to our public fish and wildlife resources.

Standard Map Products

The seabird colony data are available as maps at various scales. They are combined on maps with information from the Priority Habitats and Species polygon/point database and other databases with priority information. See map descriptions under the Priority Habitats and Species Database section, of this document, for further details. A report that describes each seabird colony survey point location on the 1:24,000 scale maps is included.

A document, *Fish and Wildlife Map Products*, may be provided with the maps with a complete description of the codes used on the map and in the reports or it may be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

Standard Digital Products

Digital data are available as ESRI® export or shape file format, in State Plane South coordinates (Zone 5626), North American Datum of 1927 or North American Datum of 1983 (1991 adjustment). The data will be provided as a single seabird colony point layer.

A detailed document, *Fish and Wildlife Digital Data Documentation*, may be provided with the digital data or it can be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

SEAL AND SEA LION HAULOUT DATABASE

Database Manager: Raj Deol (until database manager is appointed)
(360) 902-2487

General Descriptions

The Seal and Sea Lion Haulout Database contains locations of haulout sites in Washington waters. The information was published, in February 2000, by the Washington Department of Fish and Wildlife (WDFW) as the *Atlas of Seal and Sea Lion Haulout sites in Washington*. "The purpose of the atlas is to provide information on haulout sites for harbor seals, Steller sea lions, California sea lions, and northern elephant seals located in Washington waters. Locations are provided in order to conduct assessment surveys as well as identify important sites used by those species relative to potential sources of disturbance, development, and other uses of Washington's marine environment. Locations of haulout sites were mapped for sites that have been identified during aerial, ground and boat surveys conducted by personnel from the Washington Department of Fish and Wildlife, National Marine Fisheries Service and Cascadia Research Collective as part of ongoing assessment efforts for these pinniped species in Northwest water"². For a copy of the atlas, contact WDFW Wildlife Program at (360) 902-2515.

Resolution and Limitations

The Seal and Sea Lion Haulout Database only includes information that WDFW maintains in a central computer database. It only documents the haulout sites to the best of our knowledge. It is not a complete inventory of haulout sites in the state. To insure appropriate use of this information, users are encouraged to consult with WDFW biologists. See Appendix A, at the end of this document, for contacts.

Please note maps or digital data may contain some species and habitats that are not considered priority by the agency.

All fish and wildlife species are vulnerable to harm from human activities. By receiving seal and sea lion haulout data from WDFW, you incur an obligation to use it in a way that does not cause undue harm to our public fish and wildlife resources.

Standard Map Products

The seal and sea lion haulout data are available as maps at various scales. They are combined on maps with information from the Priority Habitats and Species polygon/point database and other databases with priority information. See map descriptions under the Priority Habitats and Species Database section, of this document, for further details. A report that describes each haulout site on the 1:24,000 scale maps is included.

² Jeffries, S.J. et al, February 2000, *Atlas of Seal and Sea Lion Haulout Sites in Washington*, WDFW

A document, *Fish and Wildlife Map Products*, may be provided with the maps with a complete description of the codes used on the map and in the reports or it may be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

Standard Digital Products

Digital data are available as ESRI® export or shape file format, in State Plane South coordinates (Zone 5626), North American Datum of 1927 or North American Datum of 1983 (1991 adjustment). The data will be provided as a single seal and sea lion haulout point layer.

A detailed document, *Fish and Wildlife Digital Data Documentation*, may be provided with the digital data or it can be viewed on our web site at: www.wdfw.wa.gov/hab/release.htm.

OLD GROWTH DATABASE

Database Manager: Shelly Snyder
(360) 902-2483

General Description

The Washington Department of Fish and Wildlife (WDFW) undertook an old growth inventory and mapping project as part of the overall Remote Sensing Program in 1986. WDFW uses remote sensing technology for wildlife habitat mapping and for research into habitat use by animals. The driving force behind this project was the need for forest stand type mapping for use in spotted owl habitat preference research, and management applications for elk and mountain goats. The objective was to improve the mapping of forest stand type categories in western Washington using digital Landsat Satellite data.

Resolution and Limitations

The Landsat data and other data analysis were done by WDFW personnel between 1986 and 1989 and are available for most of western Washington (excluding coastal lowlands). If a more detailed description of the Old Growth Database is needed please request the following document: *The Status of Old Growth in Western Washington: A Landsat Perspective* by James R. Eby and Michelle C. Snyder, January 1990.

Please note that this database is static and the information is dated, currently there are no plans to update the data.

Standard Map Products

Old growth maps are available at various scales and overlay US Geological Survey 7.5-minute topological maps. The maps contain information about late successional timber stands which are divided into three types, old growth, large saw timber, and small saw timber. Maps also contain township and section boundaries. Old growth maps are not included as part of the standard request process a special request for them must be made at the time you place your order. A report detailing information on old growth information is not included with the maps. Contact the database manager for any questions you may have about the data.

A document, *Fish and Wildlife Map Products*, may be provided with the maps with a complete description of the information used on the map or it may be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

Standard Digital Products

Digital data are available as ESRI® export or shape file format, in State Plane South coordinates (Zone 5626), North American Datum of 1927 or North American Datum of 1983 (1991 adjustment). The data will be provided as a single Old Growth polygon layer.

A detailed document, *Fish and Wildlife Digital Data Documentation*, may be provided with the digital data or it can be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

NATIONAL WETLANDS INVENTORY DATABASE

Database Manager: US Fish and Wildlife Service
nwi.fws.gov

General Description

The National Wetlands Inventory (NWI) Database is an inventory system developed in 1974 by US Fish and Wildlife Service. Mapped at a scale of 1:24,000 or 1:62,000, NWI identifies wetlands and deep-water habitats as either polygons or linear features. Attached to the mapped wetlands are descriptive codes based on the Cowardin classification system (Cowardin et al., 1979). Under the Cowardin system, wetlands are classified within a hierarchical organization according to plants, soils, and frequency of flooding. NWI data are managed by the US Fish and Wildlife Service.

Resolution and Limitations

NWI data is collected through stereoscopic analysis of high altitude color infrared aerial photographs. Because the methodology and scope of work impose limitations on the accuracy of the data, there is an inherent margin of error. As there has been no attempt in the design of the inventory system to delineate wetland boundaries, the maps should not be used for regulatory purposes. They are useful as an initial means of identifying the general location and extent of wetlands within a region, and when used in conjunction with hydric soils maps and aerial surveys, as a starting point for developing more detailed wetland inventories.

Please note that this version of NWI database, housed at Washington Department of Fish and Wildlife, is static and the information is dated. Check with US Fish and Wildlife Services web site, listed above, for any data that may have been updated in Washington State.

Standard Map Products

NWI areas are combined on maps with information from the Priority Habitats and Species polygon/point database and other databases with priority information. A report detailing information on NWI areas is not included with the standard map products. If specific details are needed you must request the digital data.

Standard Digital Products

Digital data are available as ESRI® export or shape file format, in State Plane South coordinates (Zone 5626), North American Datum of 1927 or North American Datum of 1983 (1991 adjustment). The NWI areas will be provided as a single polygon layer.

A detailed document, *Fish and Wildlife Digital Data Documentation*, may be provided with the digital data or it can be viewed on our web site at: wdfw.wa.gov/hab/release.htm.

Appendix A. WDFW Regional Contacts

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE REGIONAL HABITAT PROGRAM MANAGER CONTACTS

For Assistance with Priority Habitats and Species Information contact a regional habitat program manager and they will direct your questions to the appropriate biologist.

County project is in...

Contact...

Asotin, Columbia, Ferry, Garfield, Lincoln,
Pend Oreille, Spokane, Stevens, Walla
Walla, Whitman

Mark Grandstaff (Acting)
PO Box 456
Walla Walla , WA 99362
Region 1 Phone: (509) 546-4082
e-mail: grandmhg@dfw.wa.gov

Adams, Chelan, Douglas, Grant Okanogan

Chris Parsons
1550 Alder Street NW
Ephrata, WA 98823-9699
Region 2 Phone: (509) 754-4624
e-mail: parsocbp@dfw.wa.gov

Benton, Franklin, Kittitas, Yakima

Ted Clausing
1701 South 24th Avenue
Yakima, WA 98902-5720
Region 3 Phone: (509) 575-2740
e-mail: clautac@dfw.wa.gov

Island, King, San Juan Skagit Snohomish,
Whatcom

Rich Costello
16018 Mill Creek Boulevard
Mill Creek, WA 98012-1296
Region 4 Phone: (206) 775-1311
e-mail: costerac@dfw.wa.gov

Clark, Cowlitz, Klickitat, Lewis, Skamania,
Wahiakum

Steve Manlow
2108 Grand Boulevard
Vancouver, WA 98661
Region 5 Phone: (360) 696-6211
e-mail: manloswm@dfw.wa.gov

Clallam, Grays Harbor, Jefferson, Kitsap,
Mason, Pacific, Pierce, Thurston

Steve Kalinowski
48 Deveonshire Road
Montesano, WA 98563-9618
Region 6 Phone: (360) 249-4628
e-mail: kalinsak@dfw.wa.gov